# PLANNING AHEAD

## Notes for the Planning and Policy Community

Volume 6, Issue 1 January 2003

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## **Vacancy Announcements**

#### **Mobile District**

Roger Burke, CESAM-PD-F

Mobile District is a Civil Works and Military District with a diverse program that includes deep and shallow draft navigation, flood control, hydropower, water supply, shore protection, ecosystem restoration and other Corps missions and functions. The District's area of responsibility also includes Central and South America, and on occasion Corps water resources planning expertise is put to good use there. Mobile District's mission is growing and there is need of experienced water resources planners. The following vacancies in the Planning and Environmental Division will soon be announced:

Project Manager for Continuing Authority Program, Interdisciplinary GS-13: Mobile District will soon be recruiting for a project manager (PM) for the Continuing Authority Program (CAP); applicable series/titles are: GS-0020, Community Planner; GS 0110, Economist; GS-0150, Geographer; GS-0401, General Biological Scientists; GS-0408, Ecologist; GS-0430, Botanist; GS-0801, General Engineer; GS-0807, Landscape Architect; GS-0810, Civil Engineer; GS-0819, Environmental Engineer; GS-1301 General Physical Scientist; GS-1350, Geologist; GS-1360, Oceanographer; GS-1515, Operations Research Analyst. This position is in the Plan Formulation Branch, Planning and Environmental Division. The person selected must have good understanding of all nine CAP authorities. This PM advises non-Federal interests regarding water resources problems and the ability of the CAP to "fix" the problem; oversees overall program execution and prepares an analysis of program execution, identifying appropriate corrective actions; and recommends actions needed to resolve technical issues. The PM serves as the point of contact for CAP work shared with other districts, ensures periodic reporting on status of studies and projects, and facilitates review of completed products and resolution of technical issues.

**Plan Formulation Specialist, Interdisciplinary GS-9/11/12:** Mobile District will soon begin recruiting for three or four plan formulation specialists in the following series: GS-0020, Community Planner; GS 0110, Economist; GS-0150, Geographer; GS-0401, General Biological Scientists; GS-0408, Ecologist; GS-0430, Botanist; GS-0801, General Engineer; GS-0807, Landscape Architect; GS-0810 Civil Engineer; GS-0819, Environmental Engineer; GS-1301 General Physical Scientist; GS-1350, Geologist; GS-1360, Oceanographer; GS-1515, Operations Research Analyst. These positions will be in the Plan Formulation Branch, Planning and Environmental Division. The persons selected will serve on Project Delivery Teams and be responsible for leading the planning process to identify water resources problems and opportunities, develop planning objectives and constraints, formulate and evaluate alternative solutions, and recommend a plan for implementation.

The City. Mobile is over 300 years old so it has a remarkable trove of historical treasures and traditions. The city's undeniable charm was born of time and tradition, of a long and rich history. Founded in 1702 by French naval officer Jean Baptitste Le Moyne, Sieur de Bienville – a center-city square bears his name today – Mobile is named for the Maubila Indians. The city has grown from a small settlement on the banks of its namesake river to a lively port city primed to take on the challenges of the 21<sup>st</sup> century. Throughout the years Mobile has cherished the rich traditions that made the city what it is; Mobile's Mardi Gras (second only to you-know-who's) provides a most exciting way of celebrating its unique history. At ease in the present, Mobile commemorates the past; history is displayed in house-museums, forts, cathedrals, cemeteries, a battleship, and many landmarks. Mobile's welcoming climate and waterside location allow guests to enjoy white sandy beaches and scrumptious seafood. The city enjoys a mild climate with average low/high temperatures of 40/64 degrees in the winter and 71/91 degrees in the summer. Mobile is highlighted with alluring azaleas, and accented with gorgeous live oaks, dripping Spanish moss and shading exquisite old mansions. A port city infused with three centuries of history, Mobile presents new sights and experiences with the turn of each corner. For additional information on the city go to: http://www.mobile.org/

If you are interested in these positions, be sure to provide your Resumix information to the South Central Civilian Personnel Operations Center (CPOC), Huntsville, Alabama, in response to the vacancy announcement. Please call Mr. Roger A. Burke at 251/694-3809 if you have any questions or need additional information.

## Planning Assistance to Districts for NED - NER Tradeoff Analysis

Darrell Nolton - CEIWR-MD

Developing a full range of alternatives that provide both economic and environmental benefits is rapidly becoming the standard for Corps planning. This approach represents a growing challenge to planners, particularly when those planners are relatively new to the profession.

In response IWR is building on the idea that "two heads are better than one" by offering to host a brainstorming session with a study planner or project delivery team. During this session IWR will offer as many as "10 heads" to participate in brainstorming various aspects of your study's planning, such as without project assumptions, plan formulation, plan evaluation, and trade-off analyses. Should this initial test session prove successful we will consider offering the service on a case-by-case, reimbursable basis.

To start we're looking for a study that provides both NED and NER outputs where we can help you conduct a tradeoff analysis. If you have a study that you believe qualifies and you're interested in participating in this experiment, please provide a one-page fact sheet about your study. Be sure to define the benefit types, both NED and NER; and specify the NER outputs, i.e., Habitat Units, Acres of Wetlands, etc. Also identify the study by name, location, and the area to be affected. If your study is selected, we'll ask you to provide us with additional information prior to the brainstorming session, and to deliver a brief study presentation to the IWR team as a kick off to the session.

If we've peaked your interest please send a study fact sheet to: Darrell Nolton, Methodologies Division, IWR, (E-mail – the only Nolton in the Corps directory). If you'd like to discuss this opportunity feel free to call Darrell at (703) 428-9084.

## Lessons Learned from Cost Effectiveness and Incremental Cost Analyses

Leigh Skaggs CESAJ-PD-R and Beth Brandreth CENAP-PL-E

A new report published by the Corps Institute for Water Resources – <u>Lessons Learned from Cost Effectiveness and Incremental Cost Analyses</u>, IWR Report 02-R-5 – examines how cost effectiveness and incremental cost analyses (CE/ICA) have been performed for a variety of Corps ecosystem restoration and mitigation planning studies. Through review of over 30 Corps planning reports and discussions with the individuals involved in the analyses, the authors sought to find out whether Corps project delivery teams were encountering difficulties in performing CE/ICA, whether the procedures were in fact being used to inform environmental investment decision-making, and whether any "lessons learned" might be gleaned that would in turn be helpful to a larger audience of Corps project delivery teams.

Although the report concludes that CE/ICA can be a valuable tool with the potential to improve the evaluation and comparison of alternative ecosystem restoration and mitigation plans, one of the findings is that for many studies there still exists some confusion and room for improvement in the application and interpretation of the analyses. Some of the specific "lessons learned" highlighted in the report are summarized below:

- The perception exists that CE/ICA may be more applicable to ecosystem restoration projects than mitigation projects. The fact of the matter, however, is that CE/ICA should be used to inform mitigation planning by demonstrating the cost effectiveness of various alternatives that meet a mitigation target, as well as the cost savings or benefits gained with alternative plans that provide greater or lesser ecosystem outputs than the mitigation target.
- Many of the problems encountered in performing CE/ICA (in the reports reviewed) actually reflect shortcomings related to establishing reasonable planning objectives and formulating multiple plans that meet those objectives. More than one alternative plan that meets the defined goals and objectives should be formulated, not only to properly conduct the CE/ICA, but also to assure that the project delivery team has considered enough alternatives to be confident that the recommended alternative is the best investment.
- CE/ICA is not performed in all cases (although some analyses are mislabeled "CE/ICA"). Some analyses evaluate only the total costs and benefits, or just average costs, or stop at cost effectiveness analysis, without considering the incremental costs and benefits of alternatives. In all studies the analyses need to address the question, "Is the incremental environmental output worth the incremental cost incurred to achieve it?"
- When multiple restoration sites are proposed there exists a tendency to include restoration activities at all sites, rather than asking whether it is worth it to restore all sites. In this situation all sites should be evaluated as separate components that may or may not be included in the recommended alternative unless compelling reasons exist to include restoration at all sites. This means that at a minimum a complete CE/ICA needs to be completed for each site; then if each site must be included the selected solution should be a cost effective solution. Recommendation of a Locally Preferred Plan is always an option when political considerations drive the analysis towards the inclusion of all sites.
- The practice of "telling the story" through discussing the CE/ICA procedures, results, and rationale for the selected plan is not always adequately documented. Explaining the results of CE/ICA, and presenting information related to how well an alternative plan meets planning objectives, addresses significant resources, and meets acceptability, completeness, effectiveness, and efficiency criteria (among others), are integral parts of "telling the plan selection story." To that end, decision support software such as IWR-PLAN can support the CE/ICA procedures. The use of graphs and tables produced by the software is helpful in relating CE/ICA information.

For more information on CE/ICA, please contact Leigh Skaggs at (904) 232-1972 (e-mail: <a href="mailto:lawrence.l.skaggs@usace.army.mil">lawrence.l.skaggs@usace.army.mil</a>) or Beth Brandreth at (215) 656-6558 (e-mail: mary.e.brandreth@usace.army.mil).

## The Water Resources Planning Masters Program – A Follow Up

Pat Mutschler – CECW-PC

My full-time semester at Johns Hopkins is over and I am back in the office. I have completed four of my classes (and have a 4.0 GPA, I might add!) with seven classes remaining. This spring I will be taking my first on-line class – Environmental Impact Assessments. I am hoping it will be fairly straightforward. I have been warned that Hopkins' on-line classes are very demanding. There will be a lot of reading and writing involved. I will have to register early so that I can enroll in the required "On-Line Orientation" class, which will begin on 14 January. The class itself will begin the week of 20 January. The bureaucracy of registration rivals anything I have ever seen in government service!

I am glad I had the opportunity to take the full-time semester. It was quite an experience! It took approximately five weeks for me to get into a routine – to get back into the groove of being a student. By midterms I was feeling a little more confident that I wasn't making a HUGE mistake in thinking I was ready to go back to school! I found the other students were all feeling similarly inadequate and unprepared – and they had almost all been full-time students at some point in the previous two or three years.

After the midterms, the Economics Foundations class started looking more like economics and less like calculus, which made it a whole lot more fun!

Unfortunately, the Ecology class field trip that we had scheduled to go to Assateague Island was rained out. We then rescheduled to go to a saltwater marsh a bit closer to home, and that trip was cancelled due to ice, so we only had one field trip. My Ecology class was offered in the evening, so all of the students were working professionals. It was a nice break to talk to "adults" once a week! The professor was a terrific *teacher*, as well as being an expert in the Chesapeake Bay ecosystem.

The Water Resources Development class was a consistent joy. The professor, Reds Wolman, is the son of Abel Wolman, Chairman of the Water Resources Committee of the Natural Resources Committee (1935-1941). Dr. Reds Wolman is an amazing lecturer whose depth and breadth of knowledge is awe-inspiring. Our class topics primarily covered hydraulic civilizations. Hence, Dr. Wolman brought in slides of his many trips to China, Israel, Mexico, Brazil, and Egypt. The extensive reading lists he provided are a resource in themselves! We also discussed water rights in the western United States. Even though the semester is over, he has promised to make up a lecture that was cancelled due to snow. We will be discussing either flood control in the Midwest U.S. or else navigation on the Mississippi. Either way, I am looking forward to the lecture.

There is a part of me that would have liked to stay in school for one more semester to finish most of the class work. There is another part that is anxious to get back into a "normal" routine and start applying some of what I learned. I strongly encourage anyone who is interested in taking this opportunity offered by the Corps for an advanced degree to seriously consider it. The experience is, at a minimum, mind-expanding. I still recommend that if you are looking at starting next September, sign-up for a calculus refresher course this spring. I will be taking Differential Equations and Linear Algebra this summer; not having had the course already was an impediment to signing up for courses for the spring. Good luck!

#### **GAO Audit Lessons Learned**

Doug Lamont - CECW-PC

Observations from recent GAO audits have identified several areas where we could improve our project analysis and development.

- Use models that are fully documented and produce valid and reliable results that are fully supported by field conditions.
- Follow QA/QC procedures and the ITR process to ensure the policy/technical/legal compliance of the report.
- Perform the analysis in accordance with regulations, sound theories and science using the right, experienced people on the team.

On the next two pages is a memorandum from the Director of Civil Works, Major General Robert Griffin, detailing the areas we need to focus on. General Griffin says (among other things): Our decision documents need to be able to stand up to the scrutiny and attention that they are receiving; this is fundamental to the integrity of our processes and trust with project partners and the public.



## DEPARTMENT OF THE ARMY

U.S. ARMY CORPS OF ENGINEERS WASHINGTON, D.C. 20314-1000

CECW-ZA 4 Dec 2002

MEMORANDUM FOR MAJOR SUBORDINATE COMMANDS AND DISTRICT COMMANDS

SUBJECT: GAO Audit Lessons Learned

- 1. In the performance of our work as the Nation's principal steward for water resources projects, we must continually strive to improve the quality, objectivity and credibility of the U.S. Army Corps of Engineers decision documents recommending proposed water resources projects. We can draw on recent experience of several audits of our projects to improve and strengthen our project planning and delivery process to produce even better authorization recommendations. Therefore, I ask you to examine the recent lessons learned, which can be applied to all of our planning studies and reports:
- a. **Project Development.** Make sure we have the right people on the team, experienced in formulating the project in accordance with regulations, sound theories and science. Follow the Project Management Business Process and make use of all available resources, the horizontal and vertical teams, centers of expertise, division and other districts to utilize the experience of the Corps in the development of the project. Enlist the knowledge and experience of the senior staff, i.e. Planning Chief, Deputy District Engineer (Project Management) in the course of project analysis and formulation.
- b. **Economic Analysis.** The project assumptions (with and without project) and the validity and reliability of any models that may be utilized need to be fully documented and verified through the Independent Technical Review (ITR) process. Be sure to validate any model before using it, no model is valid unless it can replicate or reasonably correlate to the conditions in the field. Ensure correct input of data and use of established procedures set forth in ER 1105-2-100.
- c. Compliance. Identify, address, and resolve policy compliance issues early-on during project development. Involve the entire vertical team (district, division and HQUSACE) early in the report development process to identify and resolve issues rather than have them raised at the end and delay the approval of the project.
- d. Quality Assurance/Quality Control. Take Quality Control/Quality Assurance (QA/QC) seriously, your reports reflect our credibility as an organization. Use your QA/QC procedures to actively ensure the policy/technical/legal compliance of the project analysis and report. Involve the District and MSC senior planning and technical staff throughout the process during project development, report review and compliance certification to ensure quality and accountability for the products.

CECW-ZA

SUBJECT: GAO Audit Lessons Learned

e. Independent Technical Review. For new feasibility studies that do not have signed Feasibility Cost Sharing Agreements, the ITR shall be conducted by specialists from organizations <u>outside</u> the districts responsible for the study. This will also be required for inland navigation studies but not for projects being performed under the Continuing Authorities Program. The goal is to fully utilize the ITR process to ensure we have a sound defendable analysis and project recommendations that are fully supported.

2. It is imperative that we ensure our project analyses are complete and will fully support our recommendations. Our decisions need to be able to stand up to the scrutiny and attention that they are receiving; this is fundamental to the integrity of our processes and trust with the project partners and the public.

FOR THE COMMANDER:

ROBERT H. GRIFFIN Major General, USA Director of Civil Works

#### **USACE Shares in Historic Preservation Award**

Judy L. Wood - CESAS-PD-El

The US Army Corps of Engineers recently garnered the first annual *National Trust/Advisory Council Award for Federal Partnerships in Historic Preservation* award for its part in the extraordinary public/private partnership that successfully recovered the Confederate submarine, *H. L. Hunley*, from the ocean off the coast of Charleston, South Carolina in May 2000.

During an October 10 ceremony in Cleveland, Ohio at the National Trust for Historic Preservation's annual meeting, Savannah District Deputy Commander, Lt. Col. Frank Randon, accepted the award on behalf of the Corps of Engineers.

The recovery effect was massive and the spirit of cooperation among the participants was exemplary. Leading the effort were the US Navy's Naval Historical Center, the South Carolina *Hunley* Commission, Friends of the *Hunley*, the South Carolina Institute of Archaeology and Anthropology, and the Submerged Resources Center of the National Park Service. Assisting were a large number of Federal, state, and local agencies, institutions, museums, research facilities, companies, and individuals.

Savannah and Charleston Districts, sister districts in South Atlantic Division, were involved in the recovery effort. Savannah's Planning Division advised the *Hunley* partners to contact Charleston District early in the planning process so that regulatory permit requirements could be included in project design. As a result, Charleston was able to evaluate the compliance needs and issue the necessary permits in a timely matter.

Savannah District's Environmental Branch of Planning Division reviewed and commented on the recovery plan and the conservation facility design. The *Hunley* partners realized late in the planning process that deeper subsurface exploration borings were needed to determine the size, number, driving depth, and location of suction piles. The piles would provide support and anchor points for the cradle that would be used to lift the *Hunley*. Savannah District rescheduled needed extensive maintenance on its jack-up drill barge – the only piece of such specialized equipment then available – and made some necessary minor repairs using in-house personnel so that the barge could mobilize on site almost immediately.

Thus, the District's jack-up drill barge and crew from Operations Division's Navigation Branch and Engineering Division's Geotechnical Branch are credited with playing a critical role in the *Hunley* recovery.

"The crew of RV *Explorer* clearly put their heart and soul into the recovery of the maximum amount of data in a minimum amount of time," said National Park Service Archeologist Dr. David Conlin, the project's Field Director. "All of our dealings with the Corps were thoroughly professional and I am extremely pleased to see both Savannah and Charleston recognized for the important contributions they made to the completion of this historic project."

### **Heritage Matters**

Paul Rubenstein - CECW-PG

Welcome to what I hope is just the first in a series of *Planning Ahead* articles on management of the cultural environment. I will report on cultural resources and activities of general interest to the planning community. These will include goings on in the National Capital Region; news on training opportunities; news of interest from other agencies; new and emerging policies, guidance, and regulations; and, cultural resources narratives and dialogs from, and about, Corps Commands.

As the 108<sup>th</sup> Congress begins its serious work, I will report on bills introduced, committee actions, and hearings that could affect the cultural environment. One immediate change that may foreshadow an immediate philosophical shift is the selection of Congressman Richard Pombo (R-Ca) to Chair the House Resources Committee. Mr. Pombo was formerly a rancher from the Stockton area and he will now oversee the House Committee that considers many Native American and historic preservation issues. On the Senate side, the Senate Indian Affairs Committee has yet to formally announce its reorganization but there is a presumption that Colorado Republican Ben Nighthorse Campbell will assume committee leadership, with Mr. Inouye serving as the ranking minority member. No hearings have yet been scheduled for either committee. (Paul.D.Rubenstein@usace.army.mil)

## Alert -- Corrections to CY2000 Published Crude Oil Import Statistics

David Penick - CEIWR-NDC-C

After publishing CY 2000 statistics, WCSC discovered that PIERS (Journal of Commerce's Port Import Export Reporting Service) used an incorrect conversion factor for changing barrels of inbound crude petroleum to tons. WCSC has substituted correct conversion factors for crude oil based on country of origin.

The correction process resulted in a nationwide decrease of 7.1% in WCSC's published foreign inbound crude oil (from 521.6 million short tons to 484.6 million short tons). Individual ports were affected differently (from 0 to -13 percent).

Corrected CY 2000 statistics have been updated on the Navigation Data Center web site; see the site also for details of the corrections. Corrections to the hard copy Waterborne Commerce of the United States, Parts 1-5 have been distributed. WCSC has corrected the PIERS CY 2001 inbound crude oil data for Corps use and for the CY 2001 WCSC publications. Additional information can be obtained by emailing Ms. Peggy Galliano, 504-862-1424 (voice); 504-862-1423 (fax); peggy.a.galliano@usace.army.mil (email).

#### Calendar Year 2001 Waterborne Commerce Statistics

David Penick - CEIWR-NDC-C

Final calendar year (CY) 2001 waterborne commerce cargo statistics are available from the Waterborne Commerce Statistics Center (corrected data, see above). At this time of year, those preparing budget and appropriations testimony for navigation projects often use waterborne commerce statistics in their documentation.

Requests for CY01 tonnage statistics should be sent to: Ms. Peggy Galliano 504-862-1424 (voice); 504-862-1423 (fax); <a href="mailto:peggy.a.galliano@usace.army.mil">mailto:peggy.a.galliano@usace.army.mil</a> (email).

## Latest Edition -- -- The U.S. Waterway System -- TRANSPORTATION FACTS

Arlene L. Dietz, CEIWR-NDC

Recently released and distributed to all Corps offices is the December 2002 edition of the USACE waterborne transportation information fact card "The U.S. Waterway System – TRANSPORTATION FACTS". If you or your office would like additional copies contact Joyce Smith of the Navigation Data Center (NDC) at 703-428-9061. However, if you would like very large quantities for public distribution an additional printing may be necessary, so please plan accordingly. The Fact Card contents are available on the Navigation Data Center web site at <a href="https://www.iwr.usace.army.mil/ndc">www.iwr.usace.army.mil/ndc</a>.

The contents of the Fact Card include tables displaying total, foreign and domestic waterborne commerce by major commodity group for 2001; geographic distribution of activities; traffic by state and by major ports; distribution of port and waterways facilities by region; inland domestic traffic, ton-miles and trip ton-miles (NEW) by waterway; the table "Top 20 U.S. Ports Handling Foreign Waterborne Intransits in 2001" added last year; and the newest table for the 2002 edition "U. S. Flag Vessels". The popularly quoted "Did You Know" facts have been categorized this year by topic, such as "Trust Fund Facts" and "Corps Dredging Facts".

Your feedback on these cards is most important to ensure NDC summarizes some of the most essential facts about the U.S. waterways, channels and ports. Provide your comments to Joyce Smith or to NDC's Director, Arlene Dietz at 703-428-9061.

## **Instructions for Contributors to Planning Ahead**

This newsletter is designed to improve the communication among all the planners and those we work with throughout the Corps. We hope that future editions will have mostly information and perspective from those of you on the front lines in the districts. We hope that these notes become a forum for you to share your experiences to help all of us learn from each other. We can't afford to reinvent the wheel in each office. We welcome your thoughts, questions, success stories, and bitter lessons so that we can share them on these pages. The articles should be short (2-3 paragraphs) except in some cases where you just have to say more.

- Use MS WORD
- Use "normal" style
- Use Times New Roman font, 11 point
- All text should be left justified with start of each paragraph indented by one tab stop.
- Each article should have short title with only initial letter of each word capitalized
- Following each title should be author's name and organization
- Last line should be contact information phone number or e-mail address 🛄

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That single line of text should be: "subscribe ls-planningahead"

To obtain a 'help' file, send only the word 'help' in the text of the message (nothing in the subject line) and address it to <a href="majordomo@lst.usace.army.mil">majordomo@lst.usace.army.mil</a>

### **Submissions Deadline**

The deadline for material for the next issue is 19 February 2003.

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The staff of *Planning Ahead* is Brad Fowler as editor, writer and chief bottle washer and Harry Kitch as publisher. Please continue to send in all those good articles and information to Brad. TEL 202-761-4231 or email <a href="kirby.b.fowler@usace.army.mil">kirby.b.fowler@usace.army.mil</a>. Harry Kitch can be reached at TEL 202-761-4574 or e-mail <a href="https://doi.org/10.1001/jan.2007/jan.20